

CLAIMS:

1. A safety seat comprising:

- a winged headrest, the head rest having:
  - a rear head support,
  - 5       • forwards-and-sideways extending support wings, fixed to the rear head support at respective opposite sides thereof and
  - deformable extensions of the support wings, each extension being hingedly connected to its support wing remote from the rear head support and normally extending obliquely forwards and laterally outwards of its
  - 10       support wing,

whereby on lateral impact including impact of the winged headrest with a side part of a vehicle with the extension on the impacted side striking the side part first, the extension hinges inwards.

2. A safety seat as claimed in claim 1, wherein the deformable extensions are formed integrally with support wings.

3. A safety seat as claimed in claim 2, wherein the rear head support, the support wings and the deformable extensions are an integral injection moulding with living hinges being provided between the support wings and the extensions.

4. A safety seat as claimed in claim 1, wherein in the winged headrest has an at least partially rigid lining, the deformable extensions being pivotal extensions of the lining.

5. A safety seat as claimed in claim 4, wherein:

- the lining is secured to the headrest at a root between the rear head support and its support wings,
- the lining has lining wings within the support wings,
- 25       • the lining via its pivotal extensions abuts the distal end of the support wings, with hinged connections between the lining wings and the lining pivotal extensions being within the distal end of the support wings and
- the lining defines voids between itself and the support wings,

whereby on lateral impact including impact of the head of an occupant of the safety seat with one of the lining wings:

- head acceleration energy is absorbed in deformation of the lining wing towards its support wing and

- as the lining wing is deformed towards its support wing, the lining extension past the distal end of its support wing pivots about the distal end and the forwards extension is pivotally moved inwards with respect to the lateral extent of the wings.

5 6. A safety seat as claimed in claim 5, wherein the deformable lining wings are individually connected to the rear head support.

7. A safety seat as claimed in claim 6, wherein the deformable lining wings include tongues on the lining wings engaging in slots in the rear head support

8. A safety seat as claimed in claim 5, wherein the two lining wings are  
10 interconnected by a crosspiece abutting the rear head support.

9. A safety seat as claimed in any one of claims 4 to 8, wherein the lining wings are provided with energy absorbent pads on their sides away from their support wings, i.e. on their inner sides.

10. A safety seat as claimed in any one of claims 4 to 9, wherein the lining wings and  
15 their pads where provided, together with their crosspiece where provided, are covered with upholstery fabric.

11. A safety seat comprising:

- a winged headrest, the head rest having:
  - a rear head support and
  - 20 • forwards-and-sideways extending support wings, fixed to the rear head support at respective opposite sides thereof
  - deformable lining wings for the support wings, each lining wing
    - being secured to the headrest at a root between the rear head support and its support wing and
    - 25 • abutting the distal end of its support wing and
    - defining a void between itself and its support wing,

whereby on lateral impact including impact of the head of an occupant of the safety seat with one of the lining wings, head acceleration energy is absorbed in deformation of the lining wing towards its support wing.

30 12. A safety seat as claimed in claim 11, wherein the deformable lining wings each have a forwards extension past the distal end of its support wing, whereby on such lateral impact, as the lining wing is deformed towards its support wing, it pivots about

the distal end and the forwards extension is pivotally moved inwards with respect to the lateral extent of the wings.

13. A safety seat as claimed in claim 12, wherein the lining wings and their forwards extension are of uniform cross-section.

5 14. A safety seat as claimed in claim 12, wherein the lining wings and their forwards extension are provided with a hinge line therebetween close to but set in from the respective distal end, whereby they are weakened to enable the hinge lines to abut the support wings on deformation to provide predictable inwards movement of the support wings.

10 15. A safety seat as claimed in claim 14, wherein the weakening is a living hinge.

16. A safety seat as claimed in any one of claims 11 to 15, wherein the lining wings are provided with energy absorbent pads on their sides away from their support wings, i.e. on their inner sides.

15 17. A safety seat as claimed in any one of claims 11 to 15, wherein the lining wings and their pads where provided, together with their crosspiece where provided, are covered with upholstery fabric.